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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,220	12/04/2001	Huey-Huey Lo	Q67576	9180
7590 03/08/2004 SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3213			EXAMINER SERGENT, RABON A	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/000,220	LO ET AL.	
	Examiner	Art Unit	
	Rabon Sergent	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1711

1. Claims 18-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Within claims 18 and 35, the language, “adding thereto (d) 0.1-5 wt% of an amine chain extender, ... , under the NCO-content of the aqueous dispersion between about 0.8-8.0 wt% through monitoring, ...”, cannot be clearly understood. Specifically, it is unclear how to interpret the use of the words, “under” and “through monitoring”.

2. The amendment filed November 24, 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The amendments to pages 6 and 7 pertaining to “about 53.1”, “about 43”, “about 81.5”, the weight percent basis, and process step (E).

Applicants are required to cancel the new matter in the reply to this Office Action.

Applicants' amended ranges constitute new matter, because the values have been taken from the examples; as such the values are specific and cannot be broadened through the association with “about”. Furthermore, when the values are outside of a disclosed range and no disclosure creates continuity between the disclosed range and exemplified values, the values cannot be relied upon to extend the ranges.

Furthermore, support has not been provided for the weight percent basis.

Lastly, the language set forth by process step (E) is unclear to the extent that it cannot be determined if support exists for the amendment.

Art Unit: 1711

3. Claims 18-50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended language within claims 18 and 35 that corresponds to the objected to amendments to the specification set forth within paragraph 2 of this Office action are considered to constitute new matter for the same reasons as set forth above.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 1711

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 18-21, 23, 26, and 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Coogan ('644).

Patentee discloses aqueous polyurethane dispersions comprising the reaction product of a prepolymer, derived from an aromatic diisocyanate, a polyol, and a hydrophilic group containing polyol, with a chain extender. The disclosed reactants, quantities of reactants, and properties of the dried film read on those set forth by applicants. See columns 1-5 and examples. In accordance with Office practice, applicants' product-by-process claims have been examined as products, since there is no evidence on the record that the process yields products having a patentable distinction.

6. Applicants have argued that their sequential prepolymer reaction scheme will yield a different product from the product disclosed by Coogan; however, applicants have failed to provide factual evidence to establish that the respective products are different. In the absence of such evidence, applicants' argument amounts to unsubstantiated opinion. The necessity of factual evidence is clear in view of the opposing disclosure within Markusch et al. that the order of addition of reactants is not critical. Furthermore, applicants have misinterpreted the reference to "unblocked" within claim 1 of Coogan. The reference has nothing to do with the structure of the polymer chain; it refers only to the isocyanate groups on the prepolymer being unblocked or reactive. Additionally, applicants' argument with respect to the step of neutralizing the prepolymer is without merit, because the neutralizing step, as claimed, is optional. Therefore, as claimed, the neutralizing step can occur at any time or not at all. Lastly, applicants' argument

Art Unit: 1711

with respect to “monitoring” the NCO-content of the prepolymer fails to appreciate the fact that the disclosed NCO-content of the Coogan prepolymer is within the claimed range at the time that it is chain extended. See examples.

7. Claims 22, 24, 25, 27, and 35-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coogan ('644) in view of Markusch et al. ('322).

As aforementioned, Coogan discloses aqueous polyurethane dispersions comprising the reaction product of a prepolymer, derived from an aromatic diisocyanate, a polyol, and a hydrophilic group containing polyol, with a chain extender.

8. Coogan differs from applicants' claims in two respects. Firstly, though the teachings of Coogan suggest a preference for the use of aromatic polyisocyanates, Coogan is largely silent regarding the use of aromatic polyisocyanates other than TDI and MDI. However, the position is taken that applicants' claimed polyisocyanates are conventional aromatic polyisocyanates, known to be useful in the urethane art at the time of invention, and, as a result, it would have been obvious to incorporate them into the composition of Coogan. Secondly, Coogan fails to disclose the sequential reaction of the hydrophilic group containing polyol and additional polyol in the preparation of the prepolymer. However, this reaction sequence was known at the time of invention. See column 13, lines 28-39 within Markusch et al. Markusch et al. further teaches that the order of reaction is not critical. In view of these secondary teachings, the position is taken that it would have been obvious to react the components in any sequence, including the sequence claimed by applicants.

9. Applicants' arguments have been considered; however, these arguments have been addressed within paragraph 6 above.

Art Unit: 1711

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent

February 22, 2004


RABON SERGENT
PRIMARY EXAMINER